Studying the presence of *Cyclospora* and *Cystoisospora* in urban parks from Leicester, UK

Cyclospora cayetanensis and *Cystoisospora belli* (formerly known as *Isospora belli*) are emerging coccidian parasites that can spread by ingesting contaminated food or water. Despite their presence is more common in tropical and subtropical regions, different studies have described domestic outbreaks due to these pathogens around the world. Zoonotic transmission of these pathogens is under discussion as they have been found in various animals and birds. We have performed a preliminary study to investigate their potential presence in an English urban environment. 132 animal faecal samples were collected between Summer 2017 and Spring 2018 from 7 different urban parks across Leicester (UK). A veterinarian confirmed animal species as: 78 avian (25 pigeon, 14 waterfowl, 12 songbird, 27 uncertain due to diarrhoea), 37 deer, 13 dogs and 4 cats. Smears were microscopically analysed by Kinyoun's acid-fast staining technique. *Cyclospora* spp. were observed in three faecal samples (2.3%), two from deer and one from avian (diarrheic sample); however, further analysis are required to determine if the oocysts observed are from *Cyclospora cayetanensis*. Contrarily, *Cystoisospora* spp. were not found in any of the screened stool samples. Despite our results should be considered as preliminary, the presence of *Cyclospora* spp. oocysts in 2.3% of the animal faecal samples collected across Leicester might represent a potential human risk that, although minor, should be throughly studied to protect the local community. Moreover, *Cyclospora* spp. have been found in different animal species, which may require different interventions to target those specific animals to protect the public health.

Key Words: *Cyclospora, Cystoisospora*, urban parks, animal faeces, human risks.